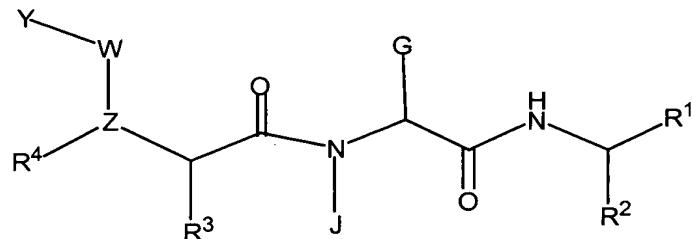


IN THE CLAIMS

1. (currently amended) A compound, including enantiomers, stereoisomers, rotamers and tautomers of said compound, and pharmaceutically acceptable salts or solvates of said compound, said compound having the general structure shown in Formula I:

Formula I

wherein:

G, J and Y may be the same or different and are independently selected from the group consisting of the moieties: H, alkyl, alkyl-aryl, heteroalkyl, heteroaryl, aryl-heteroaryl, alkyl-heteroaryl, cycloalkyl, alkyloxy, alkyl-aryloxy, aryloxy, heteroaryloxy, heterocycloalkyloxy, cycloalkyloxy, alkylamino, arylamino, alkyl-aryl amino, arylamino, heteroaryl amino, cycloalkylamino and heterocycloalkylamino, with the proviso that Y maybe additionally optionally substituted with X<sup>11</sup> or X<sup>12</sup>;

X<sup>11</sup> is selected from the group consisting of alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkyl-alkyl, heterocyclyl, heterocyclylalkyl, aryl, alkylaryl, arylalkyl, heteroaryl, alkylheteroaryl, or heteroarylalkyl moiety, with the proviso that X<sup>11</sup> may be additionally optionally substituted with X<sup>12</sup>;

X<sup>12</sup> is hydroxy, alkoxy, aryloxy, thio, alkylthio, arylthio, amino, alkylamino, arylamino, alkylsulfonyl, arylsulfonyl, alkylsulfonamido, arylsulfonamido, carboxy, carbalkoxy, carboxamido, alkoxycarbonyl amino, alkoxycarbonyloxy,

alkylureido, arylureido, halogen, cyano, or nitro, with the proviso that said alkyl, alkoxy, and aryl may be additionally optionally substituted with moieties independently selected from  $X^{12}$ ;

$R^1$  is  $COR^5$  or  $B(OR)_2$ , wherein  $R^5$  is selected from the group consisting of  $H$ ,  $OH$ ,  $OR^8$ , with the proviso that  $R^8$  is not alkyl,  $NR^9R^{10}$ ,  $CF_3$ ,  $C_2F_5$ ,  $C_3F_7$ ,  $CF_2R^6$ ,  $R^6$  and  $COR^7$  wherein  $R^7$  is selected from the group consisting of  $H$ ,  $OH$ ,  $OR^8$ ,  $CHR^9R^{10}$ , and  $NR^9R^{10}$ , wherein  $R^6$ ,  $R^8$ ,  $R^9$  and  $R^{10}$  may be the same or different and are independently selected from the group consisting of  $H$ , alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl, cycloalkyl, arylalkyl, heteroarylalkyl,  $CH(R^{1'})COOR^{11}$ ,  $CH(R^{1'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CONHCH(R^{2'})COO R^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CONHCH(R^{2'})R'$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})COO R^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})COO R^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONR^{12}R^{13}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONHCH(R^{5'})COO R^{11}$ , and  $CH(R^{1'})CONHCH(R^{2'})CONHCH(R^{3'})CONHCH(R^{4'})CONHCH(R^{5'})CONR^{12}R^{13}$ , wherein  $R^{1'}$ ,  $R^{2'}$ ,  $R^{3'}$ ,  $R^{4'}$ ,  $R^{5'}$ ,  $R^{11}$ ,  $R^{12}$ ,  $R^{13}$ , and  $R'$  may be the same or different and are independently selected from a group consisting of  $H$ , alkyl, aryl, heteroalkyl, heteroaryl, cycloalkyl, alkyl-aryl, alkyl-heteroaryl, aryl-alkyl and heteroaralkyl;

$Z$  is selected from  $O$ ,  $N$ , or  $CH$ ;

$W$  maybe present or absent, and if  $W$  is present,  $W$  is selected from  $C=O$ ,  $C=S$ , or  $SO_2$ ; and

R, R', R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are independently selected from the group consisting of H; C1-C10 alkyl; C2-C10 alkenyl; C3-C8 cycloalkyl; C3-C8 heterocycloalkyl, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, urea, ketone, aldehyde, cyano, nitro; oxygen, nitrogen, sulfur, or phosphorus atoms (with said oxygen, nitrogen, sulfur, or phosphorus atoms numbering zero to six); (cycloalkyl)alkyl and (heterocycloalkyl)alkyl, wherein said cycloalkyl is made of three to eight carbon atoms, and zero to six oxygen, nitrogen, sulfur, or phosphorus atoms, and said alkyl is of one to six carbon atoms; aryl; heteroaryl; alkyl-aryl; and alkyl-heteroaryl;

wherein said alkyl, heteroalkyl, alkenyl, heteroalkenyl, aryl, heteroaryl, cycloalkyl and heterocycloalkyl moieties may be optionally substituted, with said term "substituted" referring to optional and chemically-suitable substitution with one or more moieties selected from the group consisting of alkyl, alkenyl, alkynyl, aryl, aralkyl, cycloalkyl, heterocyclic, halogen, hydroxy, thio, alkoxy, aryloxy, alkylthio, arylthio, amino, amido, ester, carboxylic acid, carbamate, urea, ketone, aldehyde, cyano, nitro, sulfonamide, sulfoxide, sulfone, sulfonylurea, hydrazide, and hydroxamate.

2. (currently amended) The compound of claim 1 wherein R<sup>1</sup> is COR<sup>5</sup>, and R<sup>5</sup> is H, OH, COOR<sup>8</sup> or CONR<sup>9</sup>R<sup>10</sup>.

3. (currently amended) The compound of claim 2, wherein R<sup>1</sup> is COCONR<sup>9</sup>R<sup>10</sup>, and R<sup>9</sup> is H, R<sup>10</sup> is selected from the group consisting of H, CH(R<sup>1'</sup>)COOR<sup>11</sup>, CH(R<sup>1'</sup>) CONR<sup>12</sup>R<sup>13</sup>, CH(R<sup>1'</sup>)CONHCH(R<sup>2'</sup>)COOR<sup>11</sup>, CH(R<sup>1'</sup>)CONHCH(R<sup>2'</sup>) CONR<sup>12</sup>R<sup>13</sup>, and CH(R<sup>1'</sup>)CONHCH(R<sup>2'</sup>)(R').

4. (original) The compound of claim 3, wherein  $R^{10}$  is  $CH(R^{1'})CONHCH(R^{2'})COOR^{11}$ ,  $CH(R^{1'})CONHCH(R^{2'})CONR^{12}R^{13}$ , or  $CH(R^{1'})CONHCH(R^{2'})(R')$ , wherein  $R^{1'}$  is H or alkyl, heteroalkyl and  $R^{2'}$  is phenyl, substituted phenyl, hetero atom-substituted phenyl, thiophenyl, cycloalkyl, piperidyl and pyridyl.

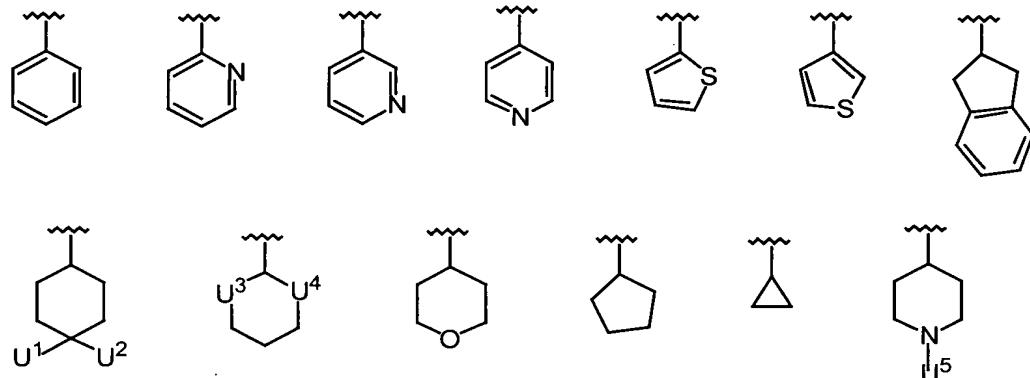
5. (original) The compound of claim 4, wherein  $R^{1'}$  is H.

6. (original) The compound of claim 5, wherein

$R^{11}$  is H or *tert*-butyl;

$R'$  is hydroxymethyl; and

$R^{2'}$  is selected from the group consisting of:



wherein:

$U^1$  and  $U^2$  maybe same or different and are independently selected from the group consisting of H, F,  $CH_2COOH$ ,  $CH_2COOMe$ ,  $CH_2CONH_2$ ,  $CH_2CONHMe$ ,  $CH_2CONMe_2$ , azido, amino, hydroxyl, substituted amino, substituted hydroxyl;

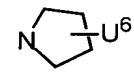
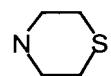
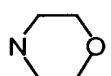
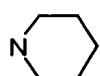
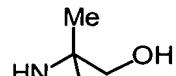
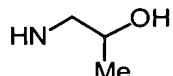
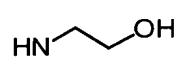
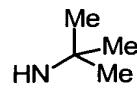
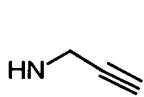
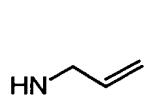
$U^3$  and  $U^4$  maybe same or different and are O or S;

$U^5$  is selected from the moieties consisting of alkylsulfonyl, aryl sulfonyl, heteroalkyl sulfonyl, heteroaryl sulfonyl, alkyl carbonyl, aryl carbonyl, heteroalkyl carbonyl, heteroaryl carbonyl, alkoxy carbonyl, aryloxy carbonyl,

heteroaryloxycarbonyl, alkylaminocarbonyl, arylaminocarbonyl and heteroarylaminocarbonyl or combinations thereof; and

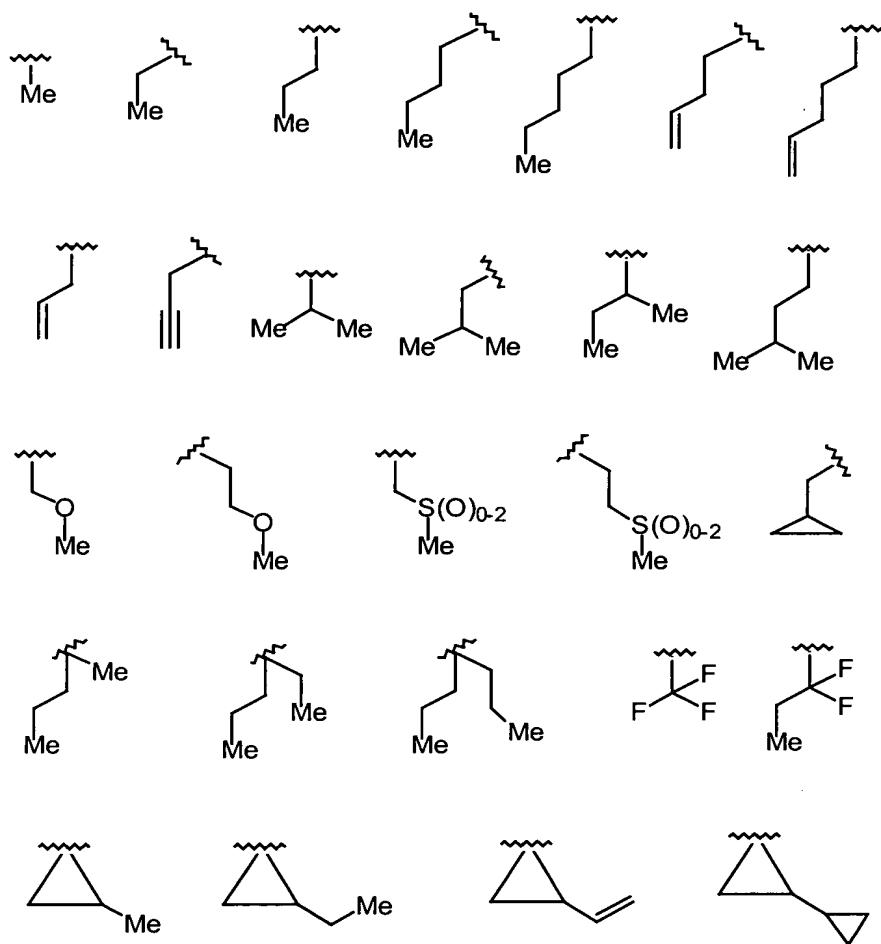
$NR^{12}R^{13}$  is selected from the group consisting of:

$NH_2$ ,  $NHMe$ ,  $N(Me)OMe$ ,  $NMe_2$ ,

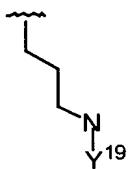
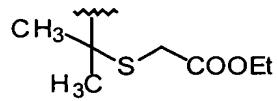
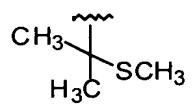
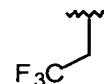
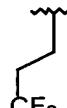
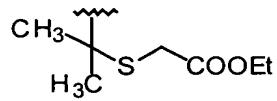
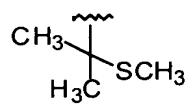
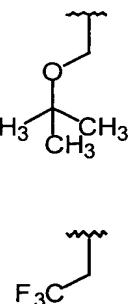
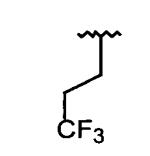
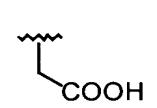
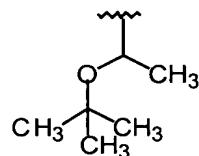
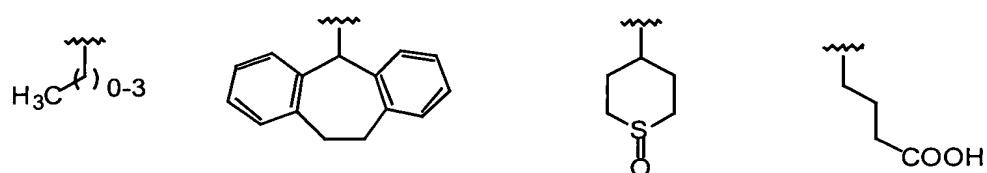
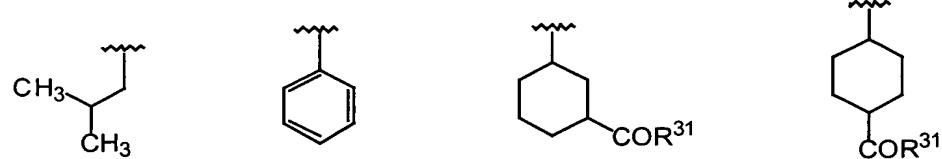
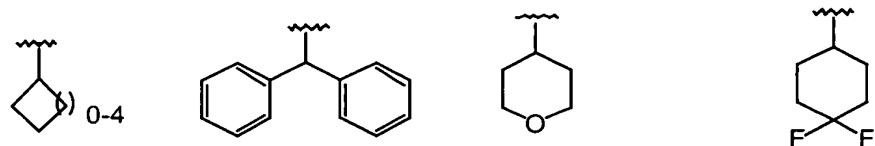
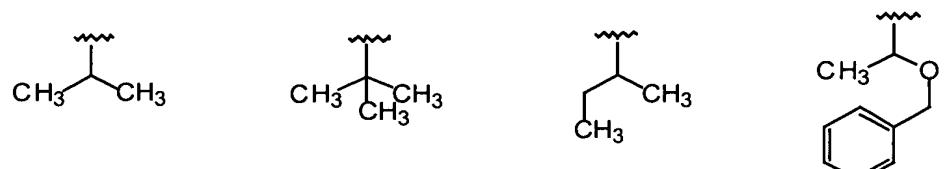


wherein  $U^6$  is  $H$ ,  $OH$ , or  $CH_2OH$ .

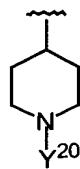
7. (original) The compound of claim 2, wherein  $R^2$  is selected from the group consisting of the following moieties:



8. (original) The compound of claim 7, wherein  $R^3$  is selected from the group consisting of:

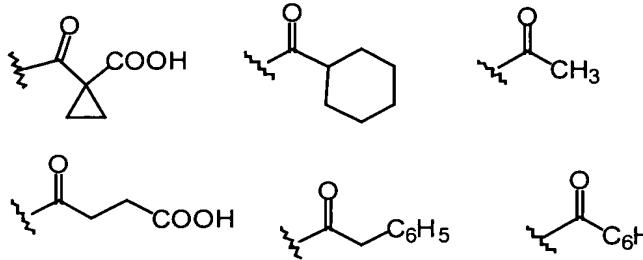


and

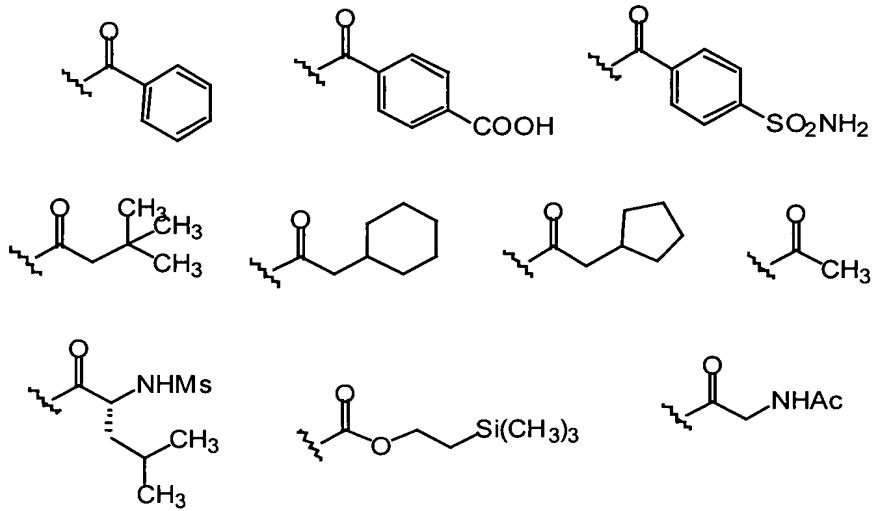


wherein  $R^{31}$  = OH or O-alkyl;

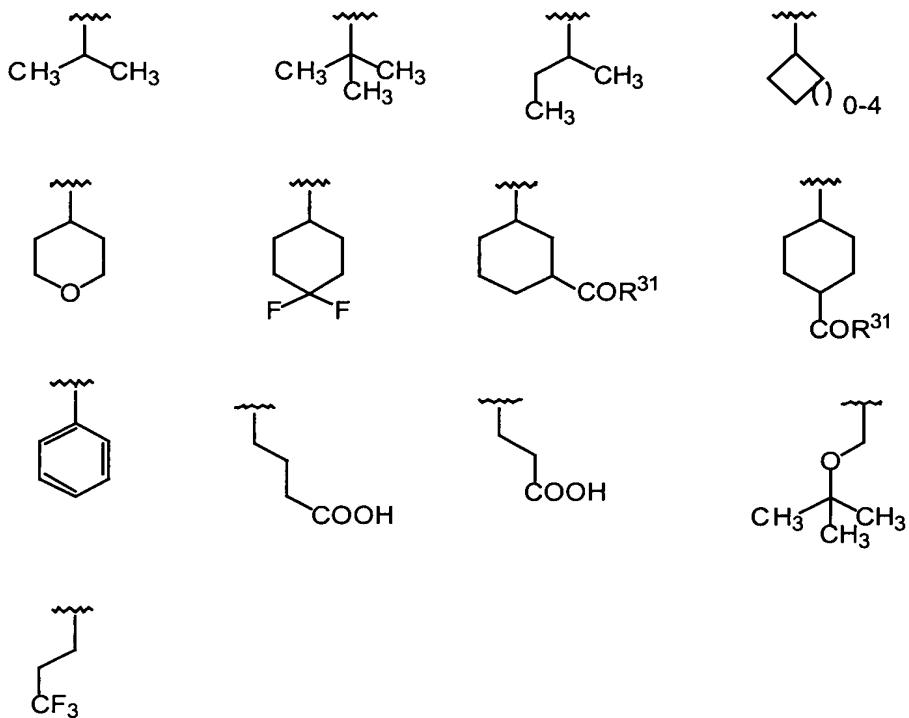
$Y^{19}$  is selected from the following moieties:



and  $Y^{20}$  is selected from the following moieties:



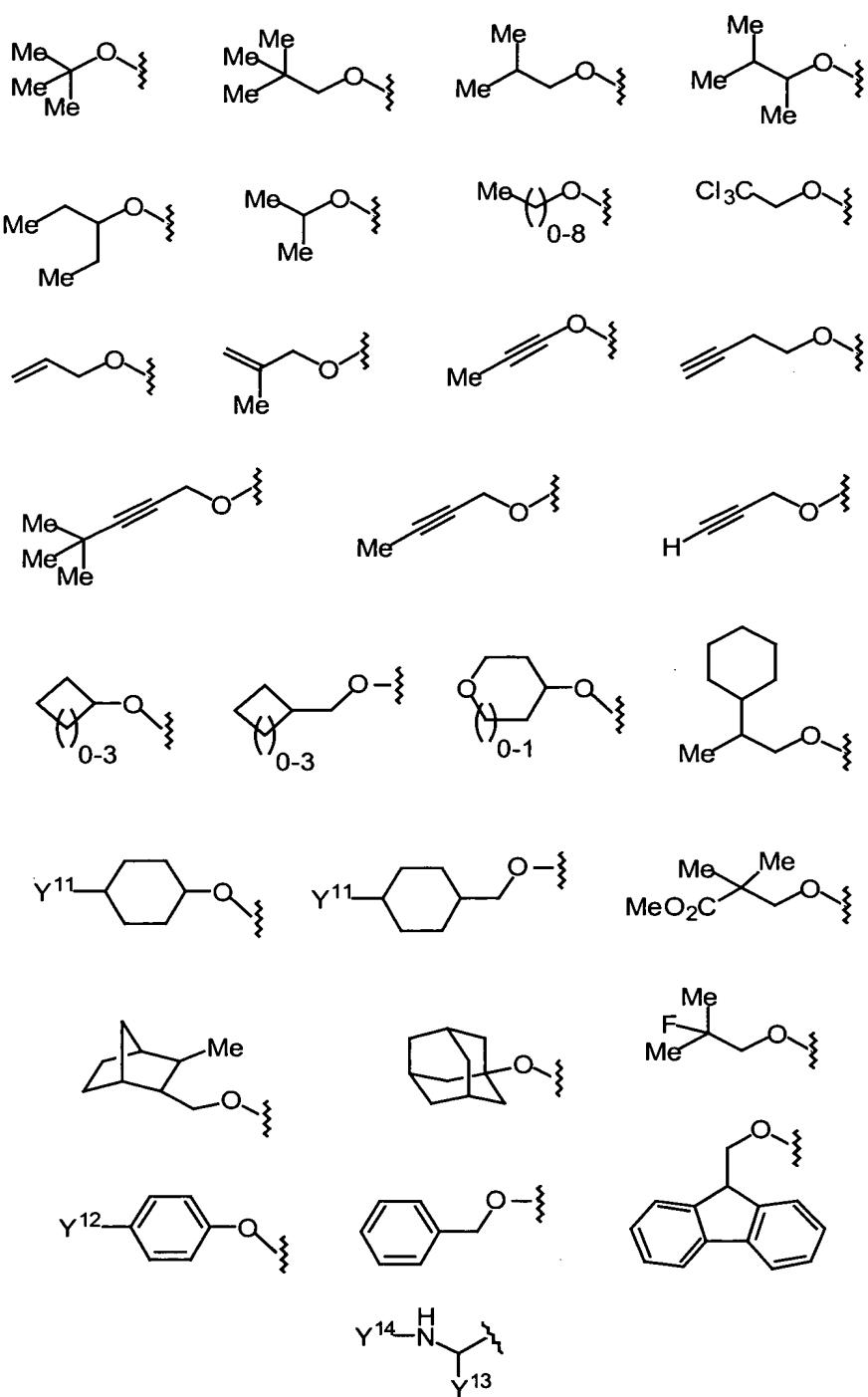
9. (original) The compound of claim 8, wherein  $R^3$  is selected from the following structures:

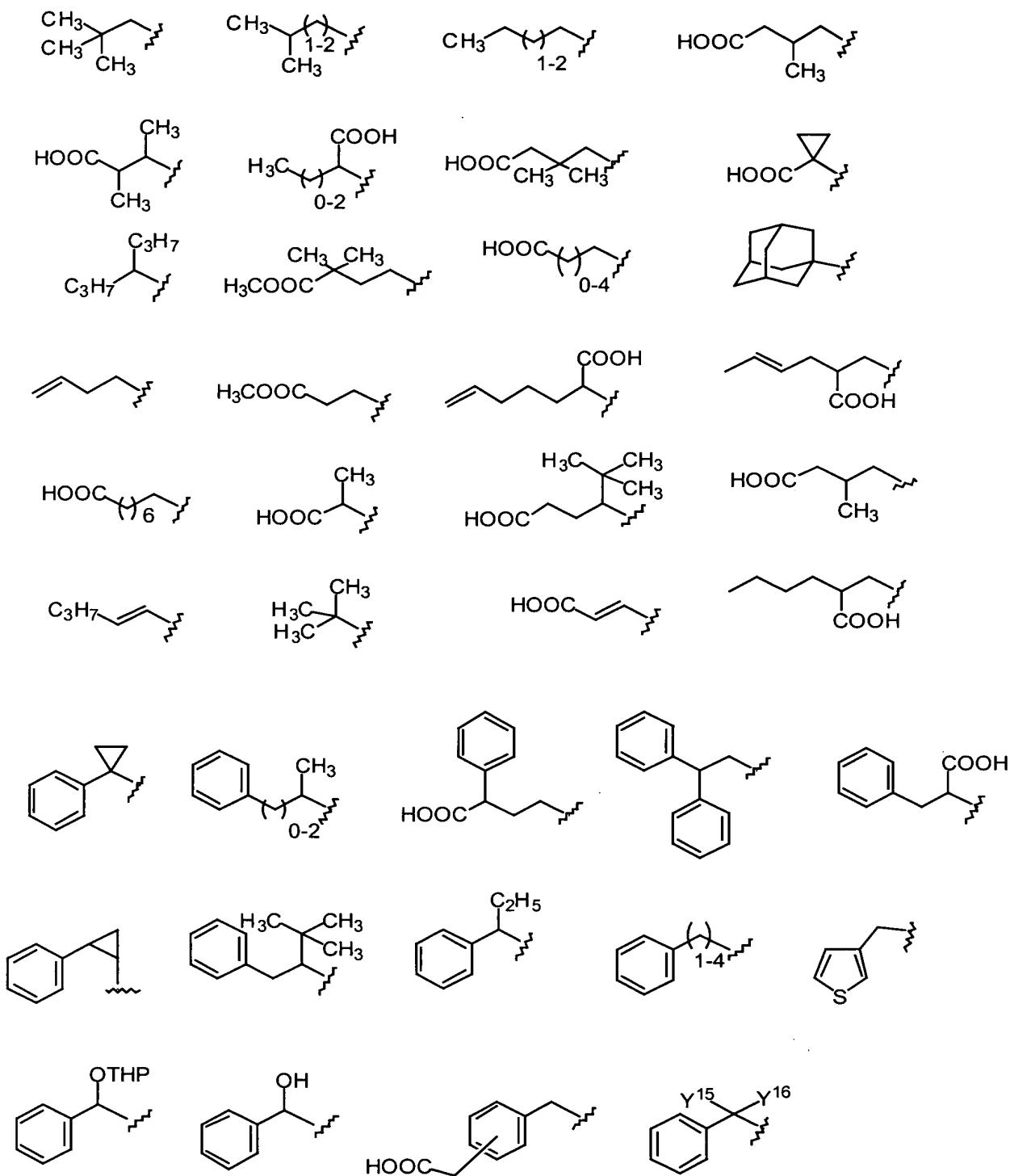


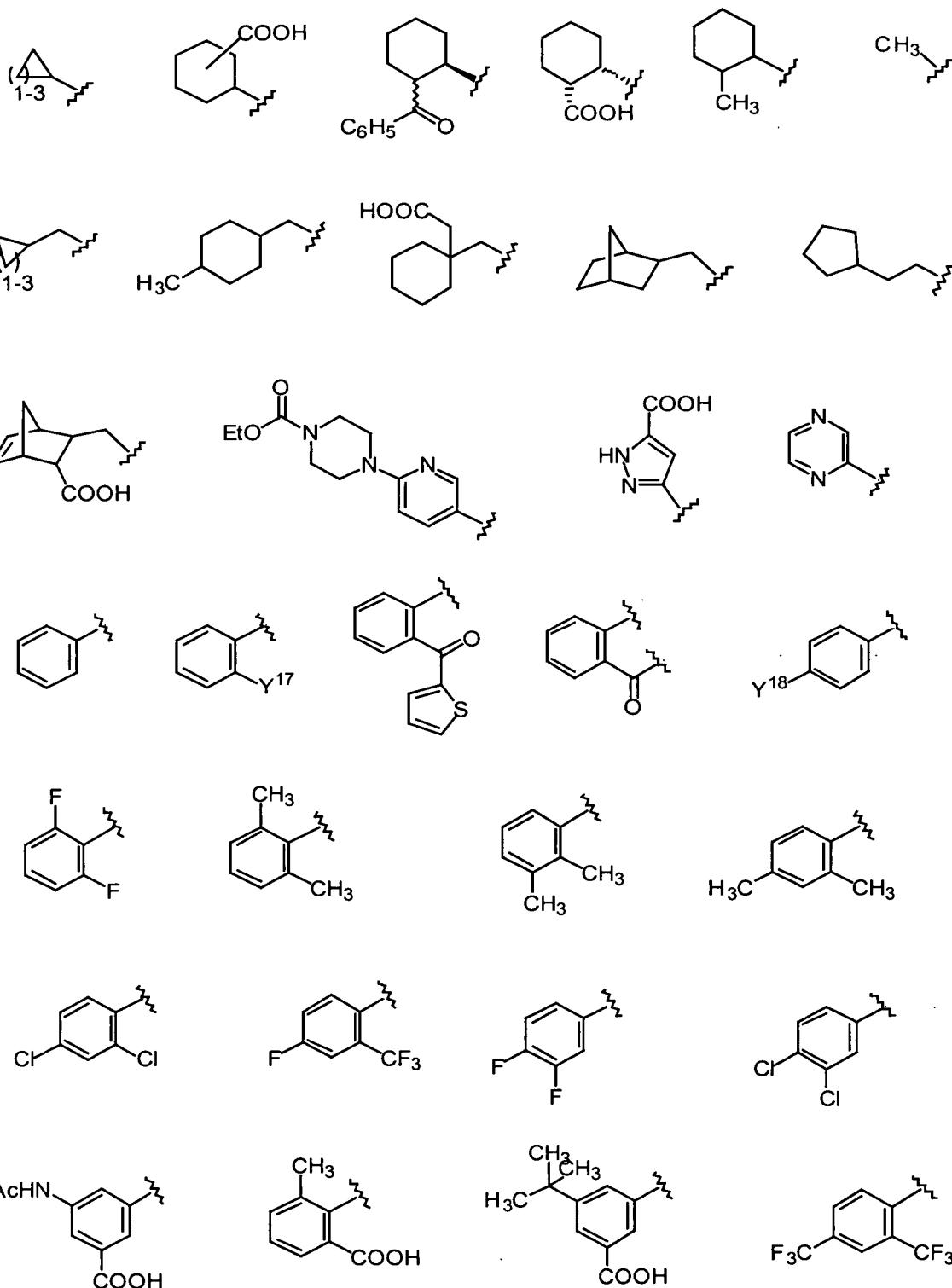
10. (original) The compound of claim 9, wherein Z = N and R<sup>4</sup> = H.

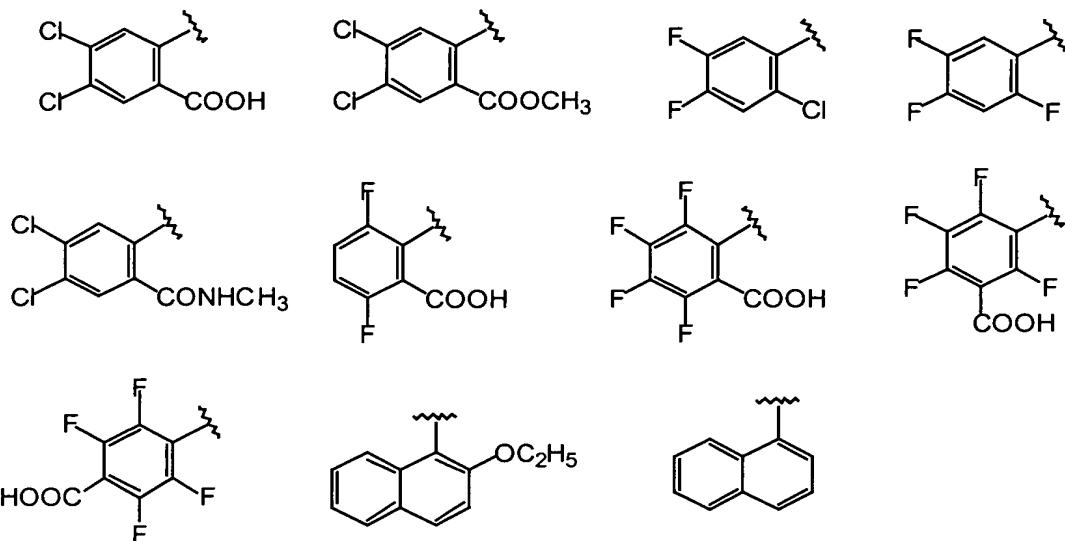
11. (original) A compound of claim 10, wherein W is C=O, or SO<sub>2</sub>.

12. (original) A compound of claim 11, wherein Y is selected from the following moieties:







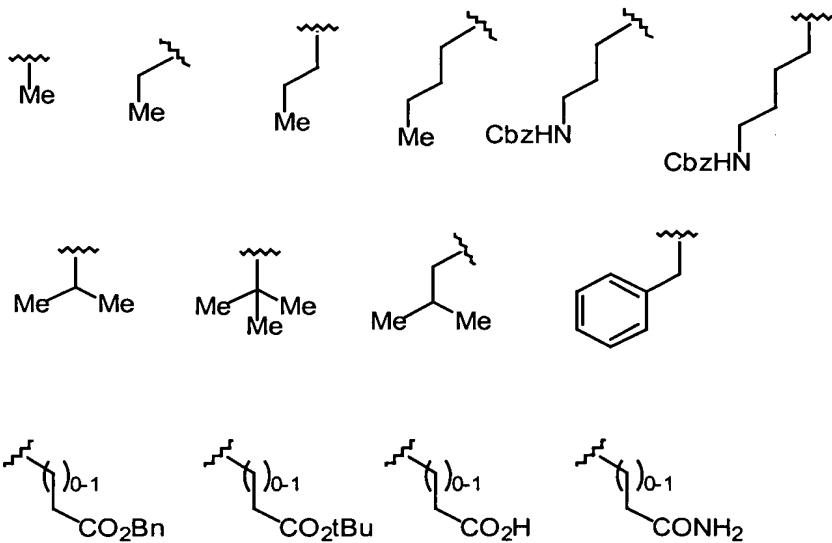


wherein:

$Y^{11}$  is selected from H, COOH, COOEt, Ome, Ph, Oph, NHMe, NHAc, NPh, CH(Me)<sub>2</sub>, 1-triazolyl, 1-imidazolyl, and NHCH<sub>2</sub>COOH;

$Y^{12}$  is selected from H, COOH, COOMe, Ome, F, Cl, or Br;

$Y^{13}$  is selected from the following moieties:



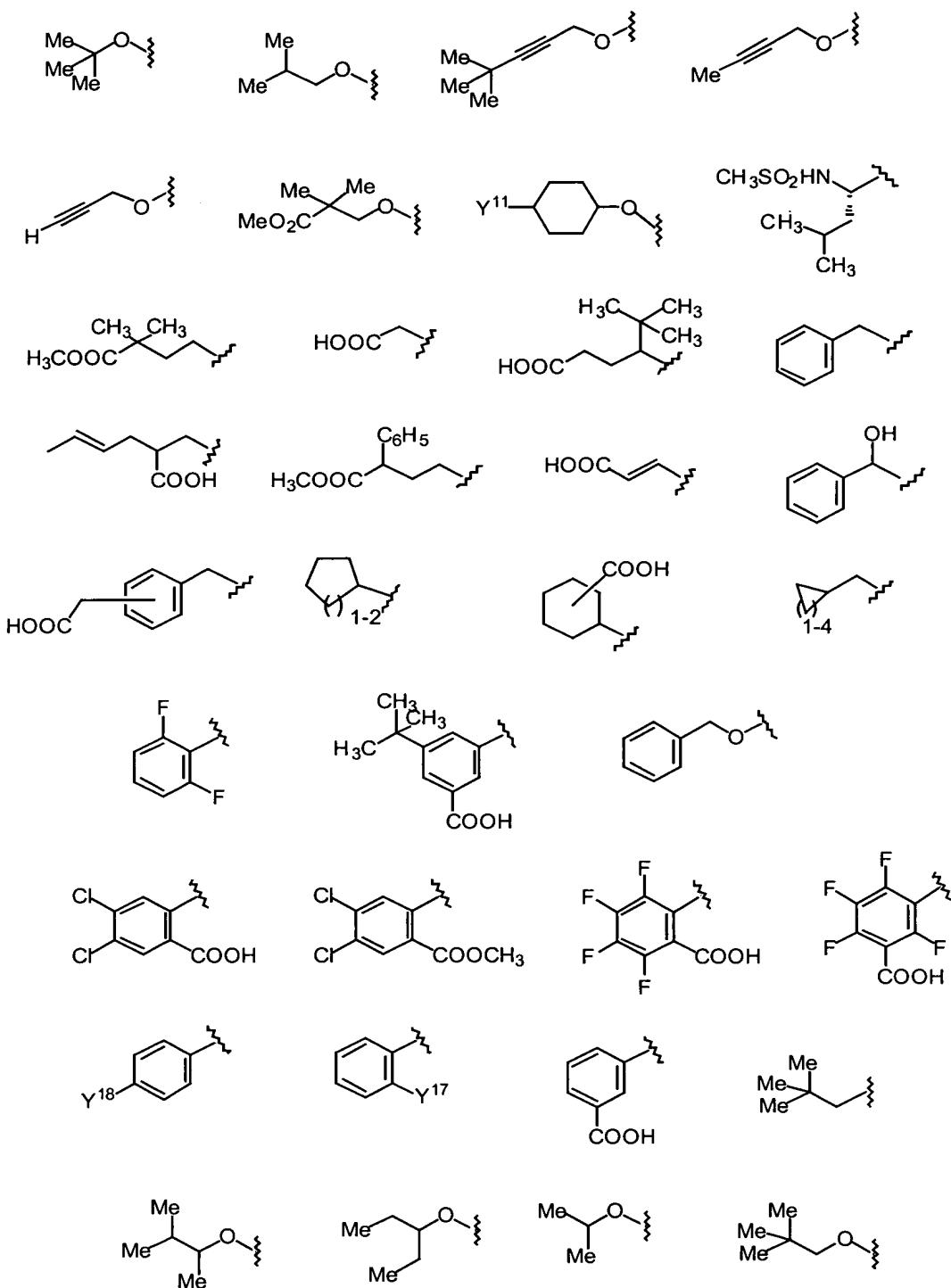
$Y^{14}$  is selected from MeSO<sub>2</sub>, Ac, Boc, <sup>i</sup>Boc, Cbz, or Alloc;

$Y^{15}$  and  $Y^{16}$  may be the same or different and are independently selected from alkyl, aryl or heteroalkyl, or heteroaryl;

$Y^{17}$  is  $CF_3$ ,  $NO_2$ ,  $CONH_2$ ,  $OH$ ,  $COOCH_3$ ,  $OCH_3$ ,  $OC_6H_5$ ,  $C_6H_5$ ,  $COC_6H_5$ ,  $NH_2$ , or  $COOH$ ; and

$Y^{18}$  is  $COOCH_3$ ,  $NO_2$ ,  $N(CH_3)_2$ ,  $F$ ,  $OCH_3$ ,  $CH_2COOH$ ,  $COOH$ ,  $SO_2NH_2$ , or  $NHCOCH_3$ .

13. (original) A compound of claim 12, wherein  $Y$  is selected from the group consisting of:

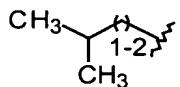
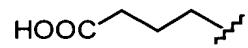
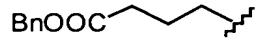
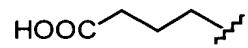
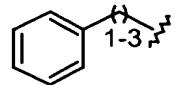
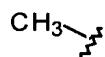


wherein:

$Y^{17}$  =  $CF_3$ ,  $NO_2$ ,  $CONH_2$ ,  $OH$ ,  $NH_2$ , or  $COOH$ ;

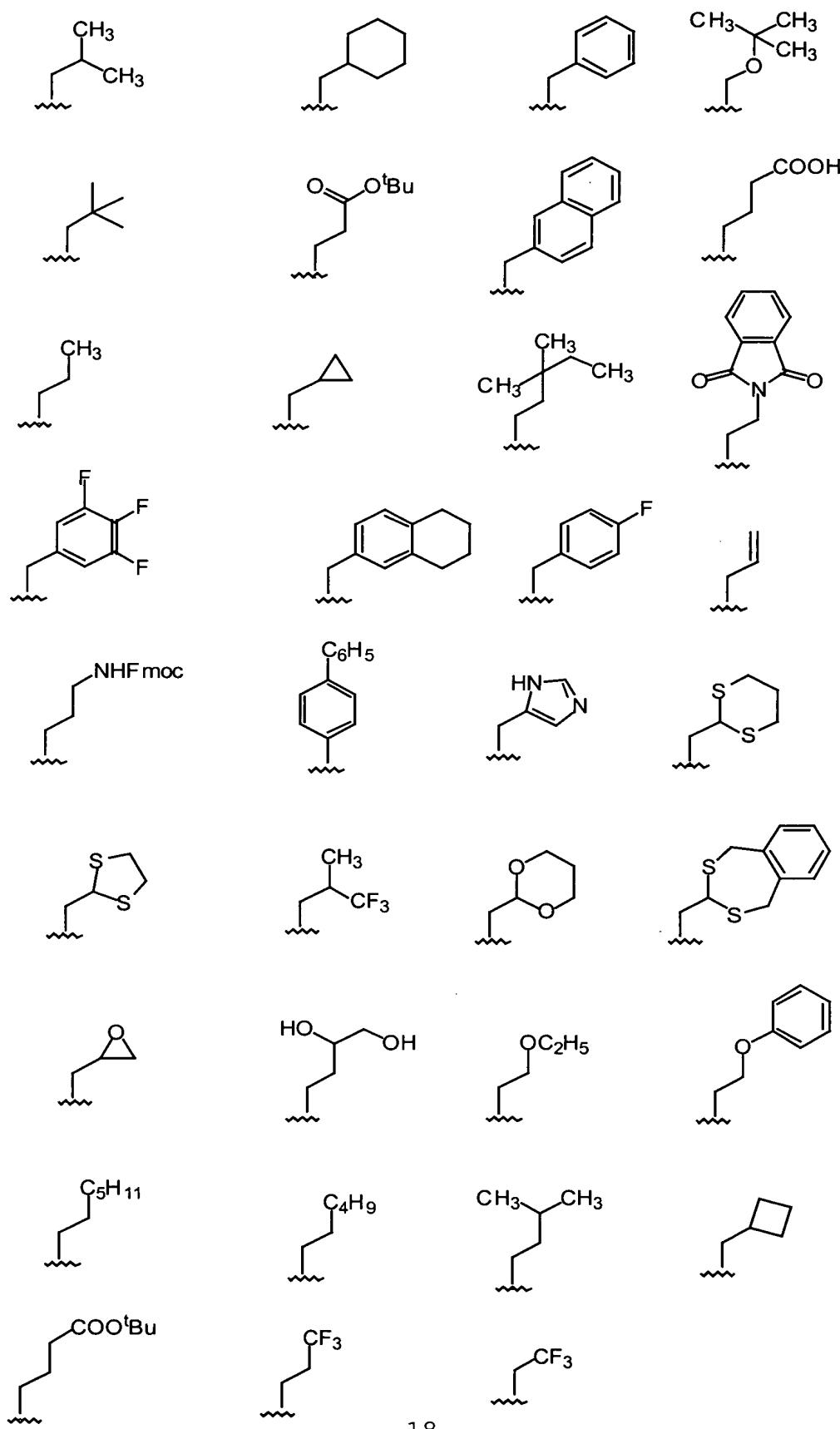
$Y^{18}$  =  $F$ ,  $COOH$ ,

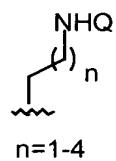
14. (original) The compound of claim 13, wherein J is selected from the group consisting of:



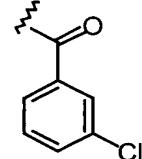
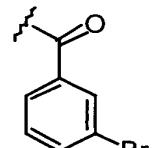
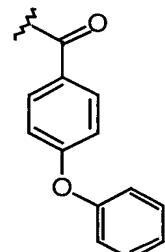
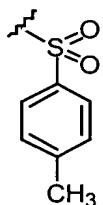
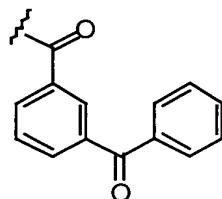
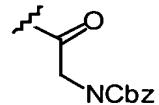
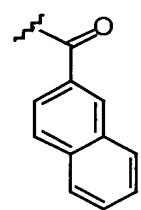
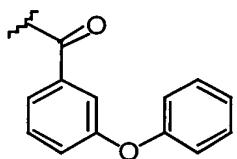
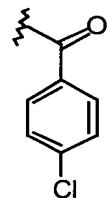
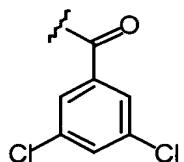
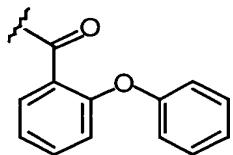
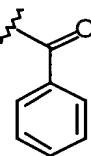
15. (original) The compound of claim 14 where in J is H, CH<sub>3</sub> or Bn.

16. (original) The compound of claim 15 wherein G is selected from moieties:

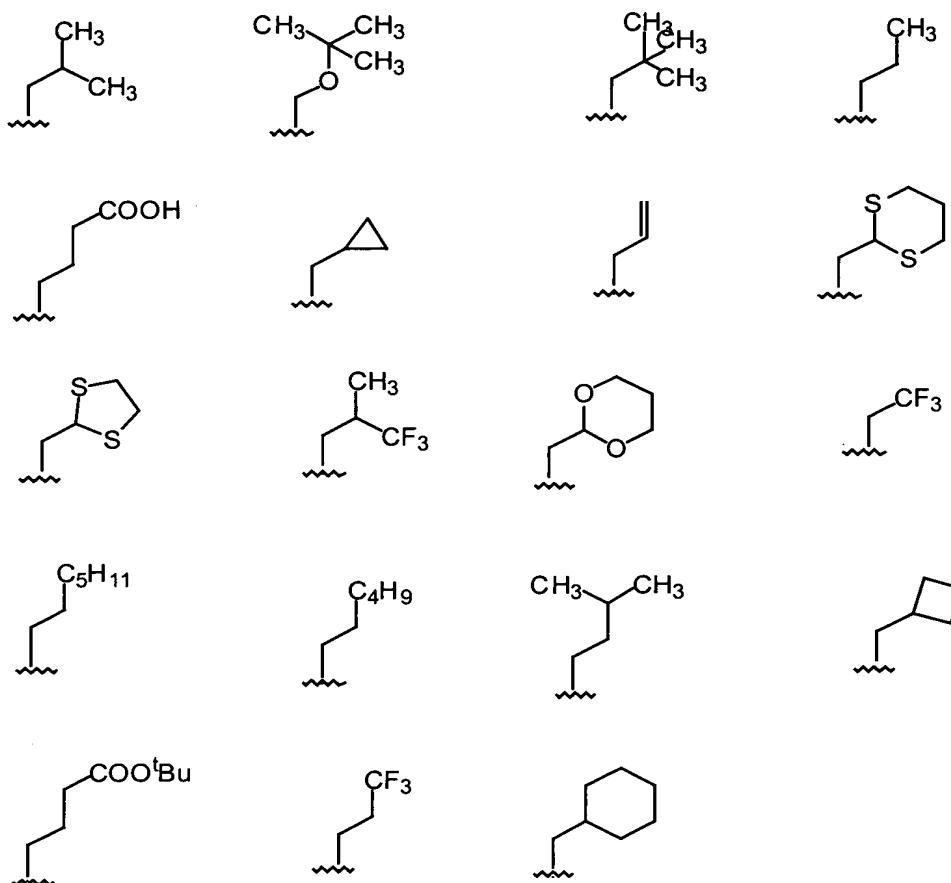




$Q=$



17. (original) The compound of claim 16, wherein G is selected from the group consisting of :



18. (original) A pharmaceutical composition comprising as an active ingredient a compound of claim 1.

19. (currently amended) The pharmaceutical composition of claim 18 suitable for use in treating disorders associated with Hepatitis C virus.

20. (original) The pharmaceutical composition of claim 18 additionally comprising a pharmaceutically acceptable carrier.

21. (canceled)

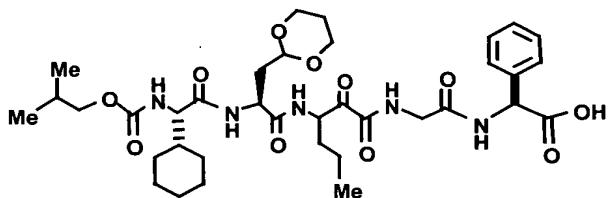
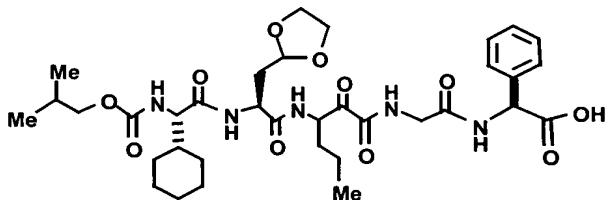
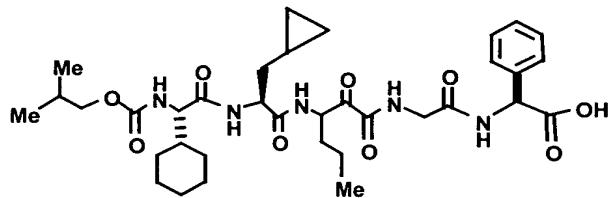
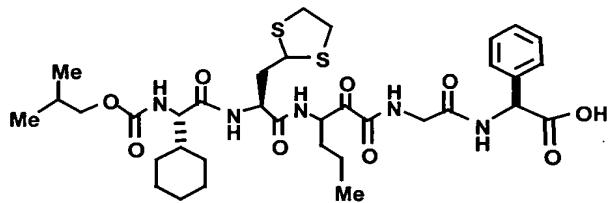
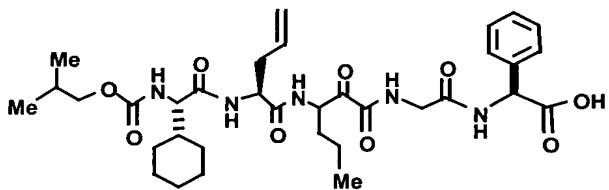
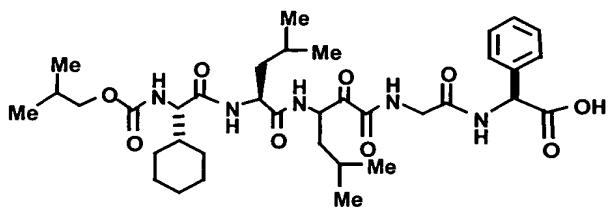
22. (canceled)

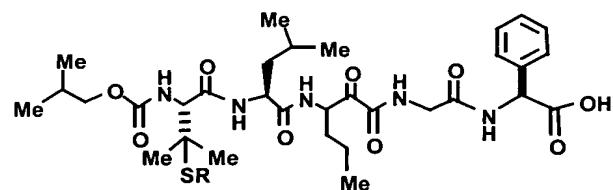
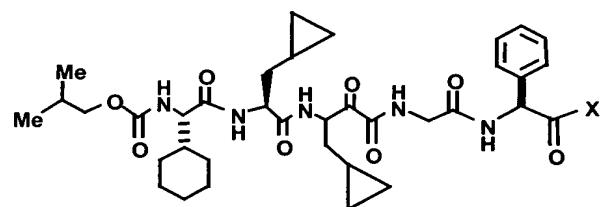
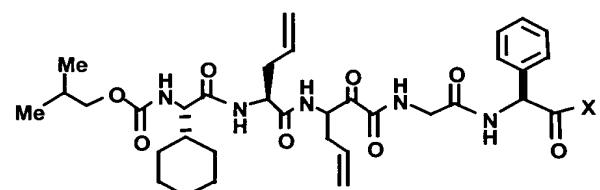
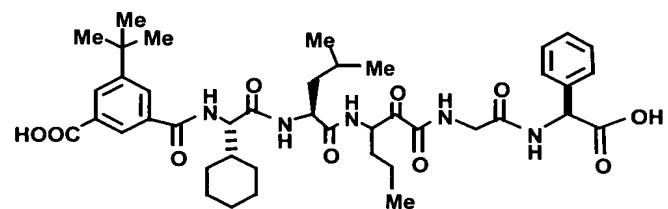
23. (canceled)

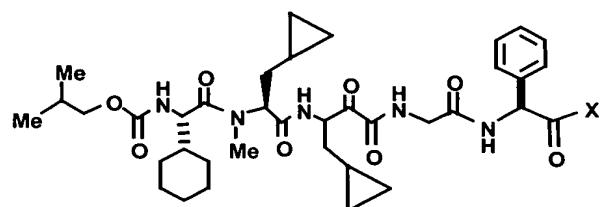
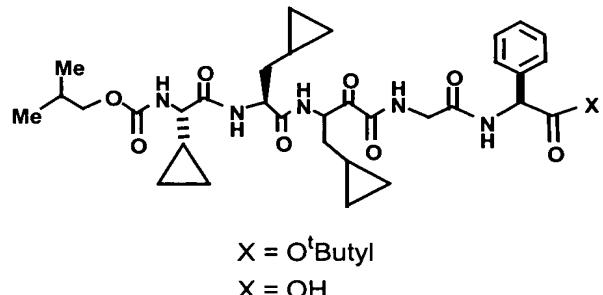
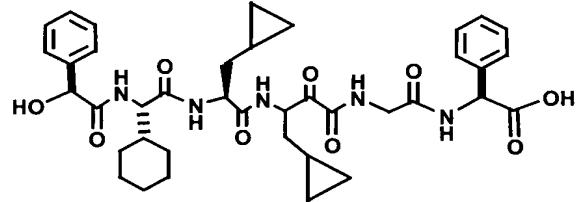
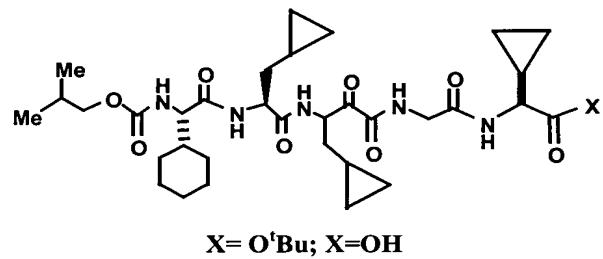
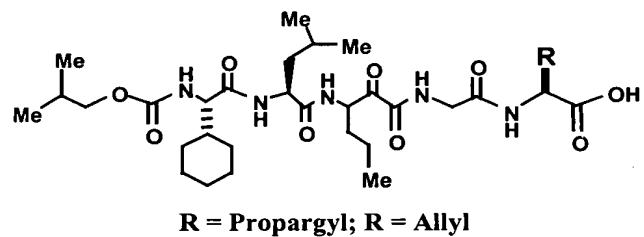
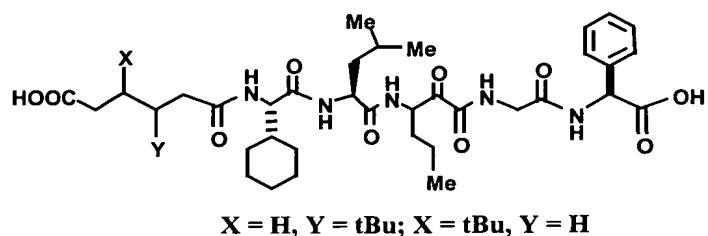
24. (canceled)

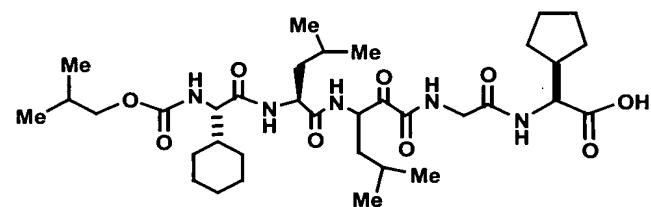
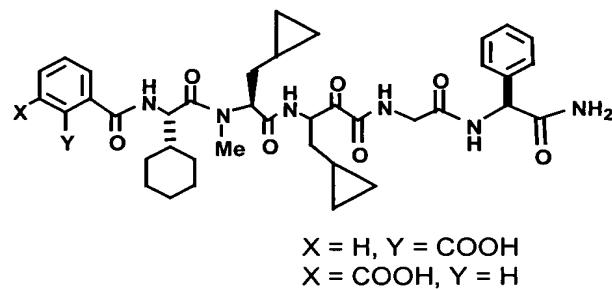
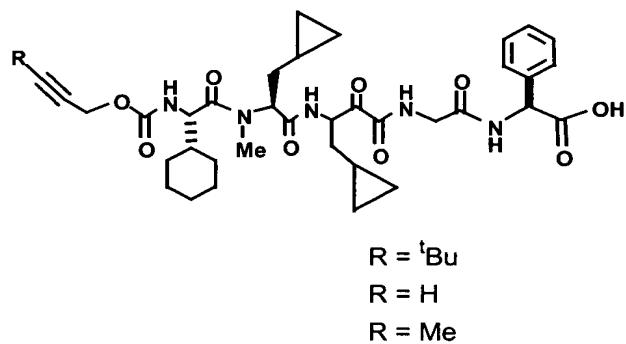
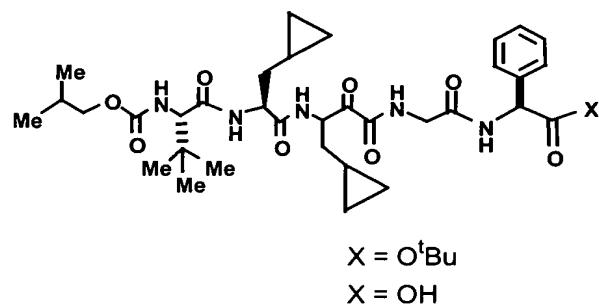
25. (currently amended) A compound exhibiting hepatitis C virus (HCV) protease inhibitory activity, including enantiomers, stereoisomers, rotamers and tautomers of said compound, and pharmaceutically acceptable salts or solvates of said compound,

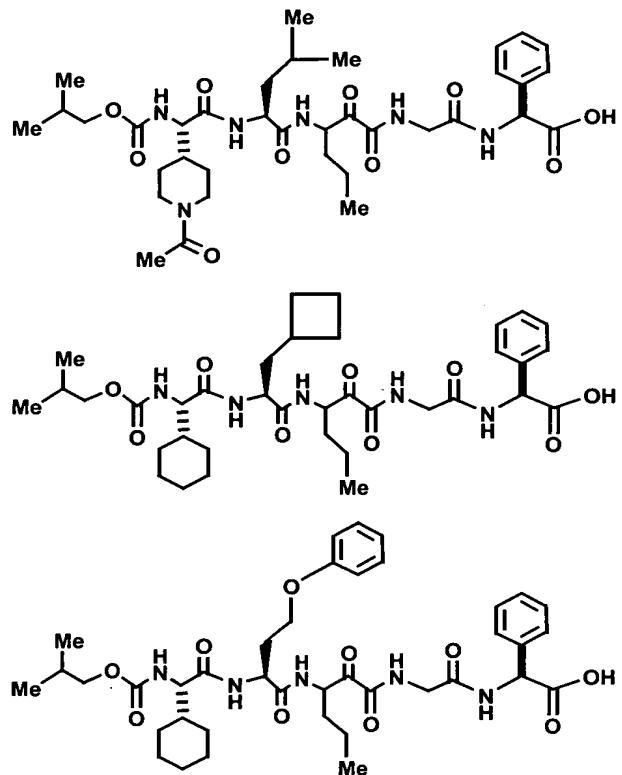
said compound being selected from the group of compounds with structures listed below:



 $R = Me$  $R = Benzyl$  $X = O^{t}Bu$  $X = OH$  $X = NH_2$  $X = NMeOMe$  $X = NMe_2$  $X = O^{t}Bu$  $X = OH$ 



$X = O^t\text{Butyl}$  $X = OH$  $X = NMe_2$ 



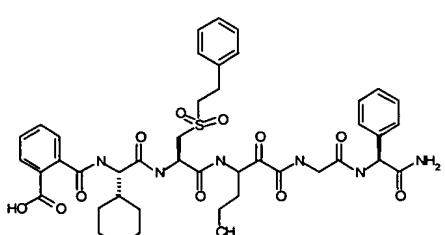
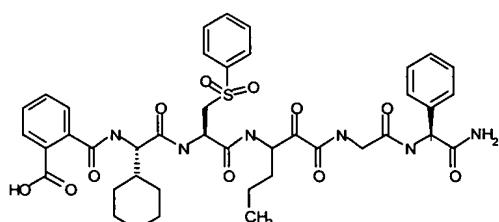
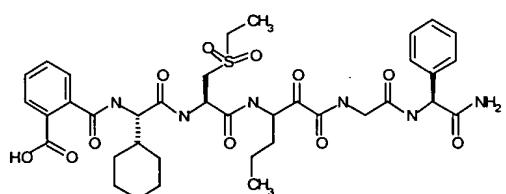
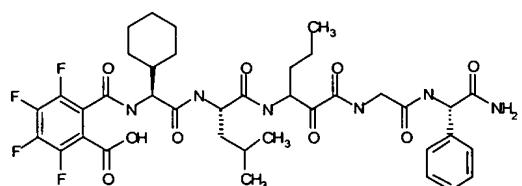
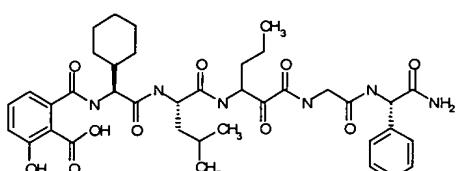
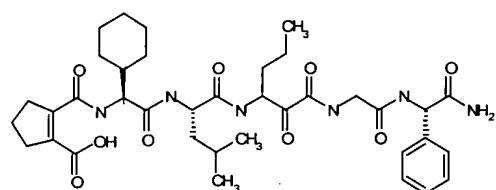
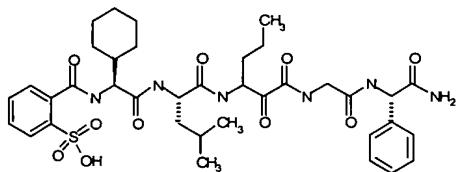
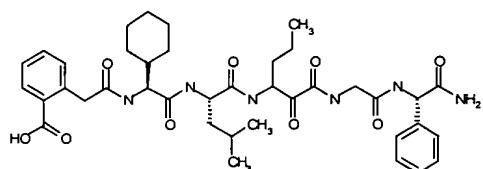
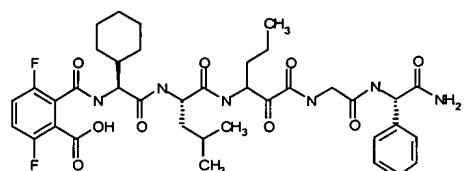
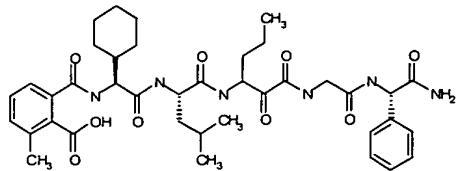
26. (currently amended) A pharmaceutical composition for treating disorders associated with the hepatitis C virus (HCV) protease, said composition comprising therapeutically effective amount of one or more compounds in claim 25 and a pharmaceutically acceptable carrier.

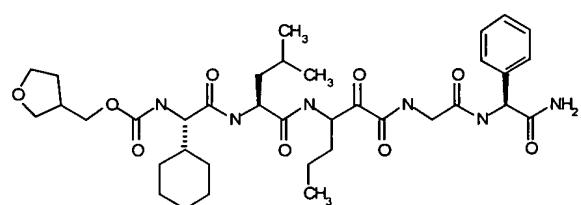
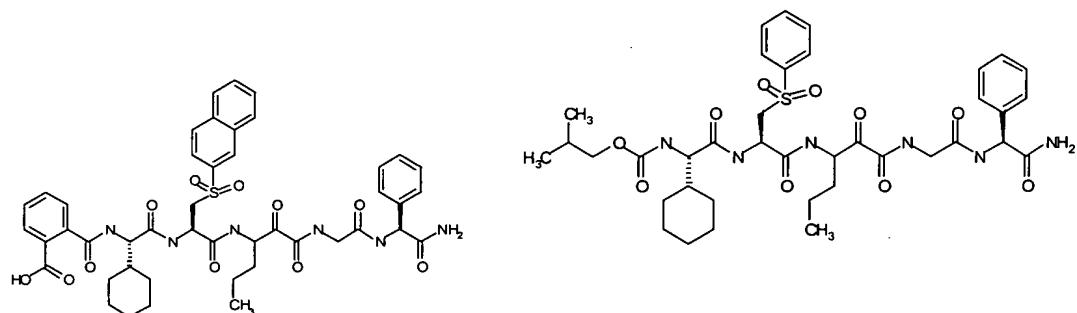
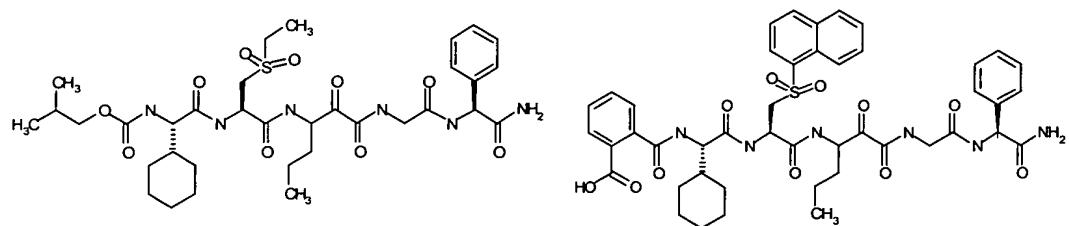
27. (original) The pharmaceutical composition of claim 26, additionally containing an antiviral agent.

28. (currently amended) The pharmaceutical composition of claim 26 or claim 27, ~~still additionally further~~ containing an interferon.

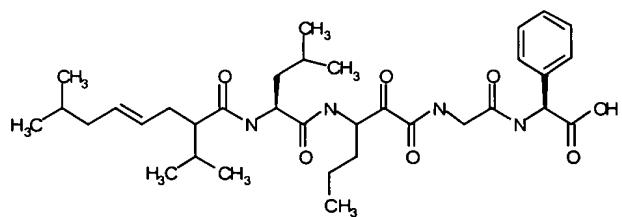
29. (original) The pharmaceutical composition of claim 28, wherein said antiviral agent is ribavirin and said interferon is  $\alpha$ -interferon.

30. (currently amended) A compound selected from the group consisting of:





and



or an enantiomer, stereoisomer, rotamer or tautomer thereof, or a pharmaceutically acceptable salt or solvate thereof, wherein the compound exhibits hepatitis C virus (HCV) inhibitory activity.

31. (original) A pharmaceutical composition, comprising one or more compounds of claim 30.

32. (canceled)

33. (canceled)

34. (canceled)

35. (canceled)

36. (canceled)

37. (canceled)

38. (original) The compound of claim 7, wherein R<sup>3</sup> is cyclohexyl.

39. (original) The compound of claim 11, wherein Y is selected from the group consisting of 2-carboxy-3-hydroxyphenyl, 3-tetrahydrofurylmethoxy, and 2-sulfophenyl.

40. (original) The compound of claim 15, wherein G is selected from the group consisting of ethylsulfonylmethyl, phenylsulfonylmethyl, 2-phenylethylsulfonylmethyl and 1-naphthylsulfonylmethyl.